

What is claimed is:

Sub A 1. In a communication system, a circuit comprising:

first and second diodes and first and second resistors connected in series

between first and second power supply terminals; and

5 third and fourth diodes and third and fourth resistors connected in series

between the first and second power supply terminals;

wherein the first and second diodes are connected together forming an input

terminal and the third and fourth diodes are connected together forming an

output terminal.

10 2. The circuit of claim 1, further comprising:

a first capacitor having an input coupled between said first resistor and said first diode,

and an output coupled between said third resistor and said third diode; and

15 a second capacitor having an input coupled between said second diode and said second

resistor, and an output coupled between said fourth diode and said fourth resistor.

20 3. The circuit of claim 2, further comprising:

a third capacitor having an input for coupling to an antenna/transmitter, and an output

coupled to said input terminal; and

a fourth capacitor having an output for coupling to a receiver, and an input coupled to

said output terminal.

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4. The circuit of claim 1, wherein the first and third resistors connect to the first power supply terminal, and the second and fourth resistors connect to the second power supply terminal.

5. The circuit of claim 1, wherein the first and third resistors have substantially the same value, and the second and fourth resistors have substantially the same value.

6. The circuit of claim 1, wherein the second and fourth resistors are the same resistor.

Subject 7. The circuit of claim 1, wherein at least one of the resistors is a current source.

8. A communication system having a protection circuit with first and second strings of series connected diodes; wherein the strings are adapted to carry substantially independent DC currents.

9. The circuit according to claim 8, wherein the diodes in the first string connect together at an input node and the diodes in the second string connect together at an output node, and the first and second strings independently couple to first and second power supply terminals.

15 10. The circuit according to claim 8, wherein the first and second strings are coupled in series to carry substantially the same DC current therein.

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11. The circuit according to claim 8, wherein the first and second strings have at least one AC coupling path therebetween.

12. A communication system comprising:

5 a first resistor and a second resistor for coupling to a first power supply terminal;

a third resistor for coupling to a second power supply terminal;

a first diode and a second diode connected in series between said first resistor and said third resistor wherein said first diode and said second diode form an input terminal at their connection;

a third diode and a fourth diode connected in series between said second resistor and said third resistor, wherein said third diode and said fourth diode form an output terminal at their connection; and

10 a first coupling capacitor having a first end coupled between said first resistor and said first diode, and a second end coupled between said second resistor and said third diode.

13. The system of claim 12, wherein said third resistor comprises a fourth resistor and

15 a fifth resistor, said fourth resistor coupled in series between said second diode and said

second power supply terminal, and said fifth resistor coupled in series between said fourth diode and said second power supply terminal; and the system further comprising a second coupling capacitor having a first end coupled between said fourth resistor and said second diode, and a second end coupled between said fifth resistor and said fourth diode.

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14. The system of claim 12, wherein at least one of the resistors is a current source.

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15. A communication system comprising
a first resistor coupled to a first power supply terminal;
a first diode and a second diode coupled in series with said first resistor, wherein said
first diode and said second diode form an output terminal at their connection;
5 a second resistor and a third resistor coupled in series with said first diode and said
second diode;
a third diode and a fourth diode coupled in series with said third resistor and said
fourth resistor, wherein said third diode and said fourth diode form an input terminal at their
connection;
a fourth resistor coupled in series between said fourth diode and a second power
supply terminal;
a first coupling capacitor having a first end coupled between said first resistor and said
first diode, and a second end coupled between said third resistor and said third diode;
a second coupling capacitor having a first end coupled between said second resistor
and said second diode, and a second end coupled between said fourth resistor and said fourth
diode.
a bypass capacitor having a first end coupled between said second resistor and said
third resistor and a second end coupled to said second power supply terminal.

16. The system of claim 15, further comprising an input capacitor having an input for
coupling to an analog signal and an output coupled to said input terminal, said input capacitor
20 for passing AC signals while preventing the flow of DC currents.

17. The system of claim 16, further comprising an output capacitor having an output and an input coupled to said output terminal.

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